N Market St
OSHL-101
4/5

APPENDIX A

EPA LETTER OF INQUIRY TO TOSCO CORPORATION, AND CORRESPONDING TOSCO LETTER OF RESPONSE

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO
ATTN OF:

January 20, 1989

Mr. Dick Hallford
Environmental supervisor
Tosco Corporation
Avon Refinery
Martineze, CA 94553

Dear Mr. Hallford:

As agreed, the following is a list of specific questions pertaining to operations at the Tosco Spokane Terminal facility which has been owned by Tosco since 1976. The inquiries include both current and historic topics. To assist with accuracy, a site map diagram is attached to permit better placement of objects requiring spatial explanation. Please address these questions in as much detail as possible and return by February 1, or as soon as possible.

CURRENT TOPICS:

1. What are the capacities of the above ground tanks currently at the facility? Please list the total number of tanks and capacities.

2. What petroleum products are stored in the tanks? Include a breakdown of volumes and descriptions (ie. API gravity, etc.).

3. What age are the tanks? When were they installed?

4. What is the construction of the SPCC berms and floors protecting the environment from spills? When was the current design(s) constructed? Are the surfaces paved or earthen?

5. Describe the program for detection of leaks from the tanks - methods, schedules, etc. Have leaks (spills) occurred during Tosco ownership? If so, expand on the type and volume of product, or wastes, lost/recovered and the spill location.

6. Has the facility, under Tosco management, generated any of the listed RCRA petroleum toxic wastes (K048 through K052) found in 40 CFR 261.32?

7. Does the facility perform tank bottom cleaning of the above-ground tanks? If so, how frequently? What are the waste volumes

generated? What are the compositions of the wastes, and how are the wastes disposed?

8. Is an active wastewater, or oil/water separator, treatment system present at the facility? If so, where is it located? Where does discharge occur, and what is the operating capacity?

9. How are waste waters or runoff waters handled?

10. Are there underground storage tanks existing on site? Are they in use? What are the capacities, age, and locations?

11. Describe the underground pipelines existing at the facility. What liquids are carried? Where are the lines located? What age are the lines? Any leaks noted? What are the sizes of the lines?

12. Is there any record of pipelines or discharge lines ever being present in the vicinity of monitoring well NM-4?

USGS topographic maps show a large pipeline terminating on Chevron property along the north boundary of Tosco. What purpose does this line serve? How old is the line? What is the burial depth? Flow rates? Have leaks ever been noted - explain.

HISTORIC TOPICS:

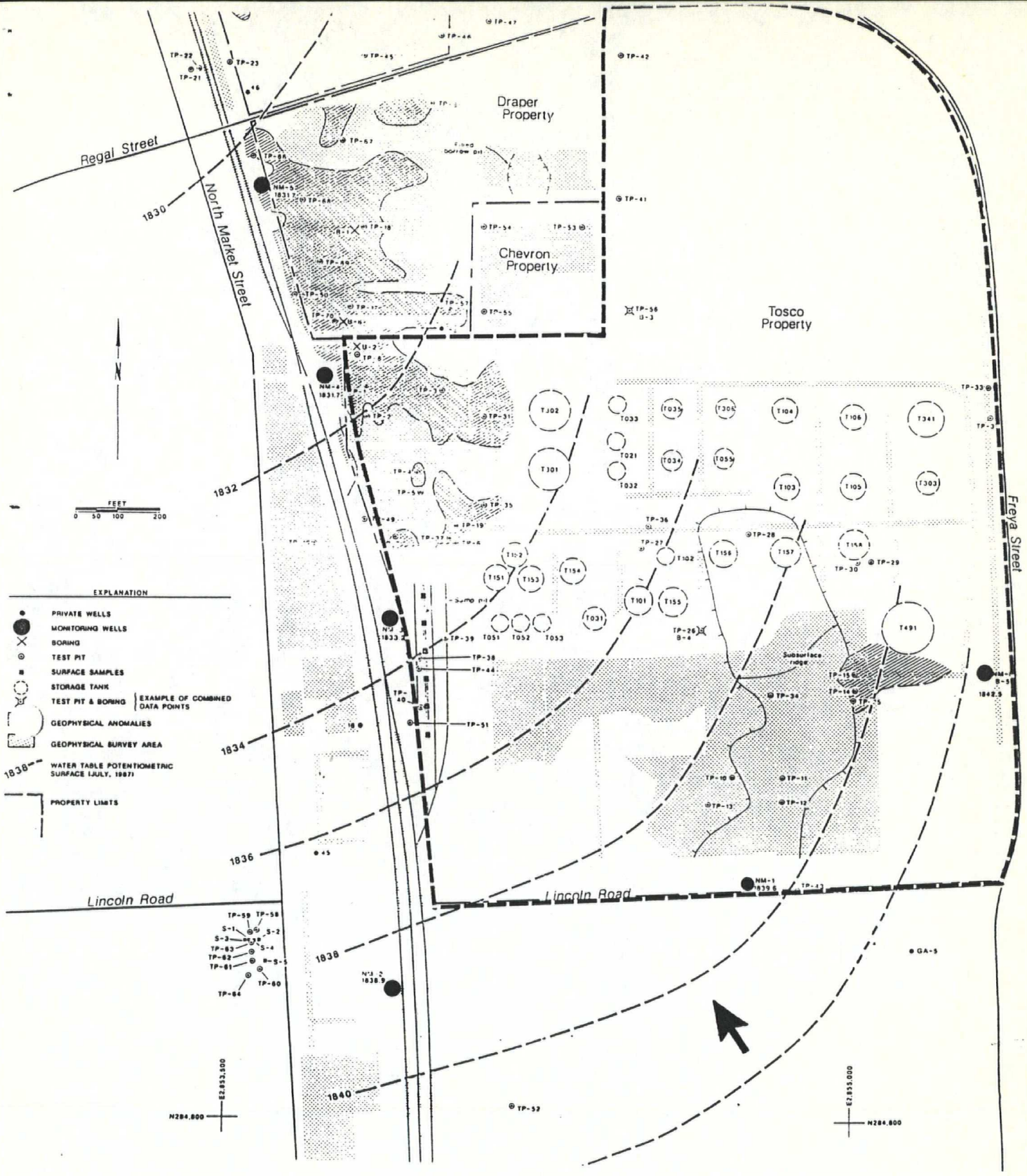
1. Where were the locations of above-ground storage tanks prior to installation of the tanks presently in use? When were they dismantled? What were the approximate capacities, and what products were contained?

2. If possible, identify the locations of known, previously existing, pipelines and discharge lines and underground tanks installed by previous owners.

As many of the above listed inquiries suggest, a facility tour supplemental to the written response could prove beneficial in clarifying certain questions. Such a visit could be scheduled in conjunction with the disposal of the monitoring well purge waters containerized and stored on site during the January 12 groundwater sampling effort. Thank you for assisting our efforts and if any questions arise, please contact John L. Roland of our Technical Assistance Team at (206) 624-9537 in Seattle.

Sincerely,

John Sainsbury
EPA On-Scene Coordinator



ecology & environment, inc.	
Job: TWA0256	Waste Site: TOSCO
Drawn by: JLR	Date: 1-20-89

(modified from Golder Assoc. 1988)

TOSCO SPOKANE TERMINAL
SPOKANE, WASHINGTON

P.O. Box 2401
Santa Monica
California 90406-2401
Telephone 213 207-6000

Tosco

February 14, 1989

COMPANY CONFIDENTIAL

Mr. John Sainsbury
EPA On-Scene Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

Re: Tosco Spokane Terminal

Dear Mr. Sainsbury:

This letter is in response to your January 20, 1989 request for information regarding the above referenced matter. In our desire to cooperate with the EPA, we are providing the information below. However, in accordance with 40 CFR Section 2.203(b), Tosco asserts a confidentiality claim covering all the information provided in this letter and the attachments to this letter. We refer to the item numbers in your letter to provide the following:

CURRENT TOPICS:

Item 1

Attached tabulation entitled "Detail A" provides the information that you request.

Item 2

The attached Detail A also includes information to answer this question. As to volumes of product handled, this will vary to some extent, but a typical thruput would be as of December 1988, which is listed as follows:

Product	December Deliveries In Barrels
Regular Leaded Gasoline	66,158
Premium Unleaded Gasoline	23,342
Regular Unleaded Gasoline	92,855
Diesel Oil	113,431
Stove Oil	15,334
Jet A50	19,649
Transmix	699
Ethanol	980
Total	332,448/month

Item 3

Detail A provides the installation date of the tanks.

Item 4

The tank pads and the levees surrounding the tanks are earthen. Throughout the years, Tosco has repaired and built up the levees as they were worn and deteriorated.

Item 5

Our primary methods of detecting leaks from the tanks and pipelines are as follows:

A. Daily inspection of the grounds and facilities as the operators gauge the tanks, operate the valves and perform maintenance and repair work.

B. Use of the product Inventory Control Program. Each morning, the individual truck loads leaving the terminal the previous day are totalled by product and terminalling customer to determine the volume delivered from the terminal. This is reconcilled with the beginning and ending inventories, receipts and internal transfers to determine any loss or gain for each individual product. A computer program is used to prepare a daily Terminal Operating Report, which also reports the inventories and volumes month to date.

The only spill discovered in the records was the accidental overfilling of Jet Fuel Tank No. 158 on October 30, 1979. It was reported to the Washington State Department of Ecology that an estimated 709 barrels was spilled, with 329 barrels being recovered and 380 barrels being lost. Two recent DOE test pits in the area indicated no evidence of residual contamination. The light jet fuel should be completely biodegraded at present.

There was a small pit hole leak in the bottom of Leaded Premium Gasoline Tank No. 105 discovered in 1978. While we have no written records of the amount lost, the local operators remember it as a small leak. The tank bottom was repaired and a new fiberglass bottom installed in October of 1979.

Although no records are found in the file, the operators recall a small leak in a 6" pipeline in the middle of the tank farm, in about 1980, where the pipe was buried while resting on a wooden skid, which caused corrosion at the point of contact. There is no record of the amount of product lost, but it was considered small. The leak was promptly repaired.

Item 6

Tosco produced tank bottoms from two tanks which contained leaded gasoline. These tanks were (1) Tank No. 153 in July 1981 when the tank bottom wastes were handled by Northwest Tank Service and disposed of offsite at Chemical Security and (2) Tank No. 034 in June of 1988 when the tank bottom wastes were handled by Envirosafe Services of Idaho and disposed of offsite at their facility in Idaho. No RCRA hazardous wastes have been disposed of on site during Tosco's ownership, which commenced on April 1, 1976.

Item 7

The above ground tanks have their bottoms cleaned infrequently. With the 30 tanks at the site, there will be one to two cleanings per year on an average. Two typical cleanings have produced between 2000 and 7500 pounds of tank bottom waste material, of which an estimated 90% to 95% is the washing water, with the remainder being primarily iron rust scale, dirt and emulsified hydrocarbons. The wastes are disposed of offsite by waste disposal contractors.

Item 8

The only waste water system at the site is to collect the drainage from the truck loading rack pads into 3000 barrel Transmix Tank 035. Any petroleum products in the mixture go to the top where they are recovered and returned to product tanks at the terminal.

Item 9

Rain and storm runoff waters are handled by natural drainage.

Item 10

All underground tanks have been removed.

Item 11

The pipelines run between each of the storage tanks to the loading rack and the short distance from the adjacent Chevron Meter Station to the storage tanks. The pipelines are primarily 6 inches in size, with a few 8" and 4" pipelines. An estimated 60% of the pipelines are underground, and 40% above ground. The pipelines handle the gasoline, diesel oil, stove oil, jet fuel and ethanol products that are handled at the terminal.

While we have no records of the age of the pipelines, the local operating people believe that the present terminal piping and manifolding systems were installed by our predecessor company in 1953 when the refinery was shutdown and removed. The site was converted from a refining to a terminalling operation from 1953 on. A cathodic protection system was installed in about 1958 to provide corrosion protection for the underground pipelines and tank bottoms.

We have described in Item 5 the one pipeline leak that we are aware of. Pipeline leaks from pipeline corrosion and deterioration are unlikely in the type of soil at the Spokane Terminal. During some soil tests in 1985, it was found that the soil resistivity in the Spokane Terminal site generally ran from 30,000 to in excess of 100,000 ohm-cms. The Corps of Engineers rates any soil in excess of 30,000 ohm-cms as unlikely to have corrosion activity. The United States Dept. of Agriculture Soil Conservation Service rates any soil over 10,000 ohm-cms to be noncorrosive. The end result is that we have not had a pipeline leak problem, and we do not expect a problem in the future with pipelines underground in this type of soil.

Item 12

We know of no pipelines of Tosco or our predecessor company in the vicinity of monitoring well NM-4. As Washington Water and Power has a right of way for its 6" diesel pipeline along our northern property line, we are aware that this pipeline is in the vicinity of well NM-4. We are aware that Chevron has a pipeline that comes from the west into its meter station, which ~~pipeline~~ delivers product into our terminal, but we do not know how close it is to well NM-4. In addition, Yellowstone operates a pipeline that enters the Chevron meter station from the east. We understand that leaks may have occurred in both the Chevron and Yellowstone pipelines, but we suggest that you contact these companies directly for additional information.

HISTORIC TOPICS:

Item 1

We are not aware that there were any other tanks on our site when the current tanks were constructed, primarily in 1939 and the early 1940's. See Detail A for construction dates. We suggest that you contact Phillips Petroleum Company, the former owner of the facility and last operator of the refinery, regarding historical topics.

Item 2

We know of six underground tanks that have been removed. The locations of these tanks and sumps were approximately as shown on attached marked up Drawing No. B-5. We do not have records of previous pipelines and suggest that you contact Phillips for additional information.

We hope that this information will provide a satisfactory answer to your questions. If not, please advise.

Sincerely,

John L Elliott

John L. Elliott
Manager, Terminal Operations

JLE/nde

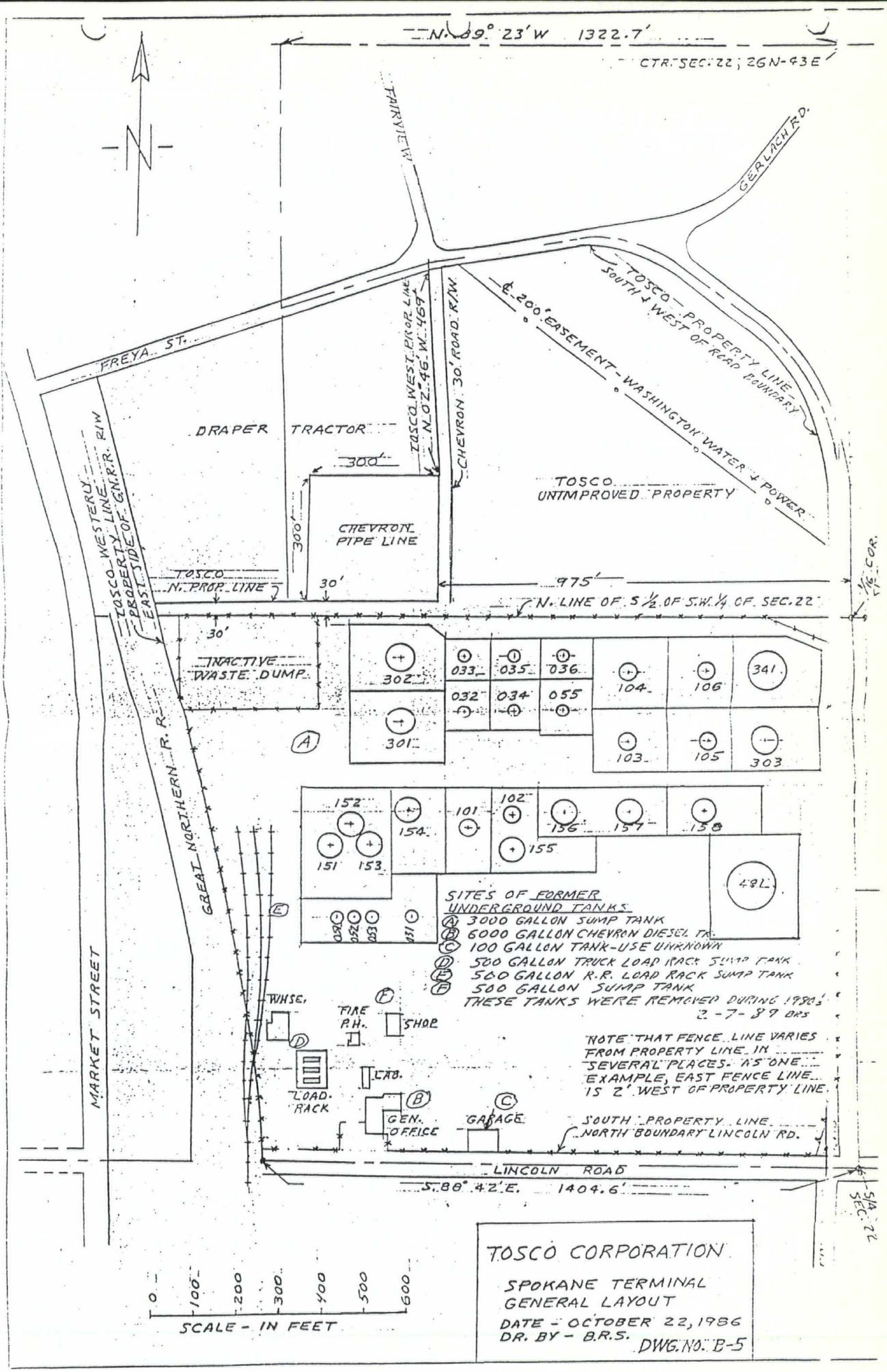
	Initials	Date
Prepared By		
Approved By		

SPOKANE TERMINAL
STORAGE TANK DETAILS DETAIL A

2-2-89 PAGE

TANK NO.	PRODUCT HANDLED	(1) APPROX. API GRAV.	NOMINAL CAPACITY IN BARRELS	INVENTORY AS OF 1-30-89	DATE ERECTED
021	TRANSMIX	30	2,600	-0-	1942
031	DIESEL OIL	33	3,000	2489	1939
032	TRANSMIX	30	3,000	1614	1939
033	TRANSMIX	30	3,000	-0-	1939
034	ETHANOL ALCOHOL	47	3,000	849	1939
035	TRANSMIX	30	3,000	60	1939
036	STOVE OIL	43	3,000	169	1939
051	U.L. PREM. GASOLINE	58	5,000	3656	1940
052	U.L. PREM. GASOLINE	58	5,000	-0-	1940
053	DIESEL OIL	33	5,000	2682	1940
055	STOVE OIL	43	5,000	265	1939
101	DIESEL OIL	33	10,000	5712	1939
102	U.L. REG. GASOLINE	60	10,000	7089	1950
103	U.L. PREM. GASOLINE	58	10,000	8002	1939
104	LEADED REG. GASOLINE	60	10,000	2961	1939
105	U.L. PREM. GASOLINE	58	10,000	8630	1939
106	U.L. PREM. GASOLINE	58	10,000	911	1939
151	U.L. REG. GASOLINE	60	15,500	11118	1942
152	LEADED REG. GASOLINE	60	15,500	12050	1945
153	LEADED REG. GASOLINE	60	15,000	12354	1946
154	JET FUEL A 50	43	15,000	13727	1942
155	DIESEL OIL	33	15,100	11933	1948
156	DIESEL OIL	33	15,800	1010	1947
157	STOVE OIL	43	15,000	9138	1940
158	JET FUEL A 50	43	15,000	13259	1940
301	LEADED REG. GASOLINE	60	30,000	19139	1952
302	LEADED REG. GASOLINE	60	30,000	12068	1952
303	DIESEL OIL	33	30,000	836	1947
341	DIESEL OIL	33	30,000	6171	1948
491	U.L. REG. GASOLINE	60	49,600	21347	1942
	TOTAL		341,580	189,179	

(1) NOTE THAT THE GRAVITY WILL VARY FROM TIME TO TIME.


N. 89° 23' W 1322.7'
CTR. SEC. 22; 26N-43E
FAIRVIEW
GERLACH RD.
TOSCO PROPERTY LINE SOUTH & WEST OF ROAD BOUNDARY
℄ 200' EASEMENT - WASHINGTON WATER & POWER
FREYA ST.
TOSCO WEST PROP. LINE N 02° 46' W 469'
CHEVRON 30' ROAD R/W
DRAPER TRACTOR
300'
TOSCO UNIMPROVED PROPERTY
CHEVRON PIPE LINE
300'
TOSCO WESTERLY PROPERTY LINE EAST SIDE OF G.N.R.R. R/W
TOSCO N. PROP. LINE
30'
975'
N. LINE OF S ½ OF S.W. ¼ OF SEC. 22
¼ COR.
30'
INACTIVE WASTE DUMP
302
301
033
035
036
032
034
055
104
106
341
103
105
303
A
152
154
101
102
156
157
158
151
153
155
48L
050
052
053
051
E
F
WHSE.
FIRE P.H.
SHOP
D
LOAD RACK
CAB.
B
GEN. OFFICE
C
GARAGE
GREAT NORTHERN R.R.
MARKET STREET
SITES OF FORMER UNDERGROUND TANKS
A 3000 GALLON SUMP TANK
B 6000 GALLON CHEVRON DIESEL TK.
C 100 GALLON TANK-USE UNKNOWN
D 500 GALLON TRUCK LOAD RACK SUMP TANK
E 500 GALLON R.R. LOAD RACK SUMP TANK
F 500 GALLON SUMP TANK
THESE TANKS WERE REMOVED DURING 1980's
2-7-89 DRS
NOTE THAT FENCE LINE VARIES FROM PROPERTY LINE IN SEVERAL PLACES. AS ONE EXAMPLE, EAST FENCE LINE IS 2' WEST OF PROPERTY LINE.
SOUTH PROPERTY LINE NORTH BOUNDARY LINCOLN RD.
LINCOLN ROAD
S. 88° 42' E. 1404.6'
SW COR. SEC. 22
0 100 200 300 400 500 600
SCALE - IN FEET
TOSCO CORPORATION
SPOKANE TERMINAL
GENERAL LAYOUT
DATE - OCTOBER 22, 1986
DR. BY - B.R.S.
DWG. NO. B-5